US-PAT-NO: 6704448

DOCUMENT-IDENTIFIER: US 6704448 B1

TITLE: Device and method for extracting specific region from image and computer-readable recording medium storing region extraction program

DATE-ISSUED: March 9, 2004

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|---|---|---|---|---|
| Hasegawa; Hiromu | Kyoto | N/A | N/A | JP |

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FOREIGN-APPL-PRIORITY-DATA:

| COUNTRY | APPL-NO | APPL-DATE |
|---|---|---|
| JP | 11-148309 | May 27, 1999 |

US-CL-CURRENT: 382/173, 382/118 , 382/164 , 382/192

ABSTRACT:

A region extraction device includes a segmentation unit for dividing an input image into a plurality of regions, a pixel number counting unit for determining the ratio of pixels of a predetermined

value to all pixels of each
of the plurality of regions, and a region
extracting unit for extracting a
region in which the ratio determined by the pixel
number counting unit exceeds
a first value. Among the plurality of regions into
which the input image is
divided, a region is extracted in which the ratio
determined by the pixel
number counting unit exceeds the first value, so
that a specific region can be
extracted accurately even if the values of pixels
in the specific region to be
extracted are scattered in a wide range.

9 Claims, 12 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 10

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Brief Summary Text - BSTX (6):
Studies have heretofore been conducted to
extract only the face region of a
person included in an image. European Patent No.
756426 discloses an art of
extracting a face area of a person included in an
image. According to this
art, a hue value is calculated from an input image
signal, the number of **pixels**
having the derived hue value is counted to
determine the **skin** color of the
person in the image, **pixels** having the determined
hue value are extracted, and
accordingly the **face** area of the person is
extracted. More specifically, hue
value H is calculated for each pixel by using

equation (1) below from an input
image signal. Pixels included in the image signal
include three data, i.e., R
(red), G (green) and B (blue). ##EQU1##